



Reply To
Attn. Of: HW-102

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

1200 Sixth Avenue
Seattle, Washington 98101

John Stiller
Project Coordinator
Burlington Environmental Inc.
Waterfront Place One
Suite 700
1011 Western Avenue
Seattle, Washington 98104

OCT 25 1993

Re: BEI Pier 91, EPA I.D. No. WAD 00081 2917
Interim Measures Justification Questions

Dear Mr. Stiller:

The U.S. Environmental Protection Agency (EPA) has reviewed Burlington Environmental Inc.'s (BEI) draft "Response to Interim Measures Justification Questions" for the Pier 91 facility, dated September 27, 1993. This report was very clear, concise, and complete. EPA does, however, disagree with the conclusions reached in the "Potential Environmental Exposure and Threats" section. This section concludes that contamination at the site does not now, nor is it anticipated to, pose an environmental risk. Based on a number of factors, including history and extent of contamination, regional setting, groundwater direction and velocity, and proximity to Lake Jacobs and Elliot Bay, it is EPA's position that cumulative adverse impacts to the environment from on-site contaminated groundwater poses substantial risk. It is also clear that stabilization actions could measurably improve the situation and decrease contaminant loading to Elliot Bay and Lake Jacobs.

EPA's specific comments to BEI's report are contained in the enclosure. In accordance with the RFI Workplan, BEI must revise the report per EPA's comments and submit it within thirty (30) days of receipt of this letter. Alternatively, if BEI disagrees with EPA's comments and does not wish to change their report's conclusions, BEI may submit a detailed justification explaining BEI's position within the same timeframe. If you have any questions, please contact David Croxton at 553-8582.

Sincerely,

Michael F. Gearheard, Chief
Waste Management Branch

Enclosure

cc: D. Hotchkiss, Port of Seattle
G. Tritt, Ecology-NWRO

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ADMINISTRATIVE RECORD
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**EPA COMMENTS ON DRAFT "RESPONSE TO INTERIM MEASURES
JUSTIFICATION QUESTIONS" FOR THE BEI PIER 91 FACILITY**

1) **Section C1.** BEI states that it is not known if groundwater has migrated far enough off-site to be discharged to Elliot Bay. EPA believes, that while there may not be definitive physical proof of discharges to Elliot Bay, the weight of evidence clearly indicates this is the case. The Pier 91 site has a history of industrial and fuel use dating back to World War II and a myriad of past and present potential contamination source areas. BEI's first physical evidence of groundwater contamination was obtained in late 1987. Using BEI's calculation of horizontal seepage velocity of 35 feet per year, it would only take 6 years for on-site contaminated groundwater to reach Elliot Bay.

In addition, contamination of Lake Jacobs has already occurred. Releases from pipelines subleased by BEI to the Pacific Northern Oil Company (Panoco) leaked and seeped into Lake Jacobs. The pipeline release to Lake Jacobs and the surrounding area are being addressed by Panoco. In all likelihood, Lake Jacobs is also negatively impacted by other contaminant sources. Large spills and contaminated groundwater upgradient of Lake Jacobs could contribute to contamination in this water body. Again, using BEI's calculated groundwater velocity, time of travel to Lake Jacobs would only take approximately 2 years.

Therefore, EPA believes sufficient evidence exists to conclude that contaminated groundwater has been around long enough to migrate far enough off-site to discharge to nearby surface water bodies.

2) **Section C2.** BEI states that no sensitive habitats have been identified in the vicinity of BEI's facility and that therefore there is no evidence to indicate that environmental receptors may be threatened by site-related contamination. EPA strongly disagrees. Elliot Bay, which is only about 200 feet downgradient from the facility, certainly qualifies as a sensitive habitat containing numerous environmental receptors. Furthermore, Lake Jacobs is only about 80 feet from the facility. And, while EPA is unaware of any studies of the fauna of Lake Jacobs, it acts at the very least as temporary home for a large number of waterfowl. Therefore, EPA concludes that there is evidence to indicate that environmental receptors are threatened by site-related contamination.

3) **Section C3.** For the reasons stated in the comments above, EPA disagrees with BEI's conclusion that "no adverse effects on aquatic or terrestrial organisms are anticipated." EPA anticipates adverse impacts from the BEI facility based on the following construct: The regional setting dictates that groundwater is discharging to Elliot Bay. Groundwater elevation

data confirms this supposition. Contamination is widespread and includes a large, not fully characterized LNAPL layer. Contamination of the groundwater has potentially existed for many years, perhaps decades, at this site. Time of travel from the facility is approximately 6 years to Elliot Bay and two years to Lake Jacobs. The contaminants present in the groundwater are toxic to a wide variety of living organisms. Elliot Bay and Lake Jacobs contain environmental receptors.

4) **Section C4.** For the reasons stated above, EPA disagrees with BEI's conclusion that "No ecological impacts has been observed or are anticipated."

5) **Section C5.** Similarly, EPA disagrees with BEI's conclusion that "No ecological **threat** has been observed or is anticipated" (emphasis added to distinguish this response from response C4).

6) **Section C6.** EPA disagrees with BEI's conclusion that "No long-term-effects are anticipated." EPA believes that based on the groundwater contaminant profile and the long-term availability of this contamination, that long-term effects are anticipated.

7) **Section C7.** EPA disagrees with BEI's conclusion that since BEI does not anticipate ecological impacts, "there is no reason to suspect that delaying remedial action at the Pier 91 facility would change this evaluation." It has taken a long time, and multiple property owners and operators, to begin investigating environmental problems at Pier 91. Final corrective measures are at least 10 months away. EPA believes, that until a final remedy is fully operational, any delay has immediate and continuing detrimental environmental effects. Interim actions at Pier 91 would be very beneficial and could likely be integrated with final corrective measures.

END